



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Francis L. Garing

Serial No.: 09/772,520

Filed: January 29, 2001

For: PLANTS AND SEEDS OF CORN
VARIETY I026458

Group Art Unit: 1638

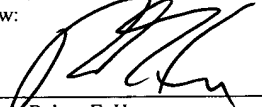
Examiner: Mehta, A.

Atty. Dkt. No.: DEKA:276US

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Robert E. Hanson

REPLY BRIEF

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REPLY BRIEF

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Appellants hereby submit an original and two copies of this Reply Brief in response to the Examiner's Answer, dated April 29, 2004. A Request for Oral Argument and the corresponding fee are being filed concurrently. It is believed that no additional fees are due; however, should any other fees be due the Commissioner is authorized to withdraw the appropriate fees from Fulbright & Jaworski Deposit Account No. 50-1212/DEKA:276US.

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I. REAL PARTIES IN INTEREST

The real party in interest is Monsanto Company, the parent company of wholly-owned subsidiary DeKalb Genetics Corporation, the assignee of this application.

II. RELATED APPEALS AND INTERFERENCES

Appeals were filed in U.S. Patent Application Ser. No. 09/606,808; U.S. Patent Application Ser. No. 09/771,938; U.S. Patent Application Ser. No. 09/788,334; U.S. Patent Application Ser. No. 10/077,589; and U.S. Patent Application Ser. No. 10/077,591. The cases are not related to the current case but share the same Real Parties in Interest, are also directed to inbred corn plants, and present many of the same issues on appeal as this case and therefore may have a bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-31 were filed with the application and were pending at the time of the final Office Action. Claims 1, 2, 5-13 and 15-20 were allowed in the final Office Action and claims 3, 4, 14, 21 and 24-31 were rejected. After an Appeal by Applicants and filing of an Appeal Brief, the Examiner re-opened prosecution and removed the rejection of claim 21 under 35 U.S.C. §112, second paragraph, and added rejections of claims 2, 6, 11, 15, 16-20, 22, 28 and 30 for alleged indefiniteness under 35 U.S.C. §112, second paragraph; claims 2, 6 and 11 for an alleged lack of written description under 35 U.S.C. §112, first paragraph and claims 27-30 under 35 U.S.C. §112, first paragraph, for an alleged lack of enablement. The rejections were not necessitated by an amendment to the claims and thus the impetus for adding the rejections at this time is unclear to Appellants.

Claim 4 was cancelled in an Amendment Under 37 C.F.R. §1.116 filed with the Appeal Brief on June 30, 2003. The Examiner's Answer indicated that the Amendment has been

entered. No other claims have been canceled. Claims 1-3 and 5-31 are now pending in the case. Claims 2, 3, 6, 11, 14-22 and 24-31 were rejected and the subject of the instant appeal. The Examiner's Answer has withdrawn the rejections of claims 2 and 3. A copy of the appealed claims is attached as Appendix 1 and a copy of the pending claims after the Amendment Under 37 C.F.R. §116 was entered is attached as Appendix 2.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. §1.116 was filed with the Appeal Brief on June 30, 2003. The Examiner's Answer indicated that the Amendment has been entered. No other amendments were made subsequent to the final Office Action.

V. SUMMARY OF THE INVENTION

The invention relates to the novel inbred corn plant designated I026458 and seeds or populations of seed thereof. Specification at page 5, lines 5-22. The invention also relates to single locus converted plants of I026458. Specification at page 6, lines 12-21. The invention further relates to methods for breeding I026458 with other corn plants, and hybrid plants produced thereby. Specification from page 7, line 23 to page 9, line 16.

VI. ISSUES ON APPEAL

(1) Are claims 6, 11, 14-20, 22, 28 and 30 properly rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out the subject matter which applicants regard as the invention?

(2) Are claims 6, 11, 14, 21 and 24-31 properly rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to convey that the applicants were in possession of the claimed invention?

(3) Are claims 27-30 properly rejected under 35 U.S.C. §112, first paragraph, as lacking enablement?

VII. GROUPING OF THE CLAIMS

Claim 2 is directed to a population of seed of the corn variety I026458, whereas claim 3 is directed to an essentially homogeneous population of seed of corn variety I026458 and claim 14 is directed to an essentially homogeneous population of corn plants produced by growing the seed of corn variety I026458. The analysis of issues on appeal for claims 3 and 14 turns on the meaning of “essentially homogeneous,” and thus the claims stand or fall together, but separately from claim 2 and the remaining claims, which are directed to distinct subject matter with different issues on appeal. The analysis of claims 6 and 11 turns on the interpretation of the term “in accordance with” and thus these claims stand or fall together but separately from the remaining claims. The rejection of claims 15, 17 and 20 turns on the interpretation of the term “capable of expressing” and thus these claims stand or fall together but separately from the remaining claims. The rejection of claims 16 and 27 turns on whether the claims broaden the scope of the claims from which they depend and thus these claims stand or fall together but separately from the remaining claims. Claims 18, 19, 22, 28 and 30 have been rejected separately for various allegedly indefinite terms and thus these claims stand or fall separately for these rejections. Independent claim 21 is directed to a process of producing corn seed comprising crossing first and second corn plants, whereas claims 24-26 are directed to hybrid plants produced by certain embodiments of this process. Process and product claims present different issues for the analysis of written description under 35 U.S.C. §112 and thus claims 21 and 24-26 each stand or fall separately from the remaining claims on appeal, while claims 24-26 stand or fall together. Claims 27-30 are directed to a corn plant of variety I026458 which

comprises a single locus conversion and, therefore, these claims stand or fall together. Claims 27-30 stand or fall separately from the remaining appealed claims, as the rejection of only these claims centers on whether written description has been provided for a single locus conversion of corn plant I026458, and the issue is distinct from other issues on appeal. Another appealed independent process claim is present in the case in addition to claim 21, claim 31, but comprises a distinct series of steps from claim 21, and thus presents different written description issues on appeal. The claim therefore stands or falls separately from both claim 21 and the remaining claims.

VIII. SUMMARY OF THE ARGUMENT

The Examiner has made 11 separate indefiniteness rejections. The rejections have been made without consideration of the repeated caution by the Federal Circuit that all that is necessary under the second paragraph of §112 is that one of skill in the art understand the metes and bounds of what is being claimed. As set forth individually below, the metes and bounds of the properly construed claims are clear to one of skill in the art.

The written description rejections fail because the claimed subject matter has been fully described. Each of the claimed hybrid plants and seeds having inbred corn plant I026458 as one parent have as half of their genome the same genetic contribution from I026458, given that corn plant I026458 is inbred. This structural characteristic is readily detectable and thus defines the claimed plants. These plants can be produced using any second plant, thus written description with regard to the second parent is satisfied based on the countless corn varieties known to those of skill in the art, including the more than 300 corn varieties for which utility patents have previously been issued. Methods of crossing the claimed corn variety have been fully described in the recited steps, and such corn breeding steps were well known in the art. Single locus

conversions of I026458 were also fully described, in that well more than a representative collection of single locus conversion traits are described in the specification and were well known to those of skill in the art. The single locus conversion traits themselves are further not being claimed, rather it is corn plant I026458 comprising any given single locus conversion that is claimed.

The enablement rejections fail because Appellants working examples and descriptions in the specification fully enable the claimed subject matter. The Examiner has improperly disregarded this evidence and failed to support the rejections in contradiction of the standards of the APA.

IX. REPLY

The Examiner's Answer contains a substantial reiteration of the arguments previously presented and briefed. Appellants have responded where further clarification is necessary in view of the Examiner's Answer.

A. **The Indefiniteness Rejections Are Premised on a Misapplication of the Standard Under 35 U.S.C. §112, Second Paragraph**

The Examiner has failed to apply the correct legal standard for an indefiniteness rejection. The Examiner's Answer throughout indicates that the claims have not been given a reasonable reading, in context, as one of skill in the art would view them when in possession of the specification. The Examiner appears to require absolute certainty of claim terms when read in isolation and by those unversed in the relevant art. This is not the correct standard. Viewed properly, the claim terms are fully definite.

The Federal Circuit has repeatedly made clear that absolute certainty in a claim is not required. The test for definiteness under 35 U.S.C. 112, second paragraph, is whether "those

skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). The Examiner must consider the claim as a whole to determine whether the claim appraises one of ordinary skill in the art of its scope. *See, e.g., Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). This has not been done here.

As explained in detail in the Appeal Brief, all of the claim terms have a well known meaning in the art when viewed in the context of the claims as a whole and with reference to the specification. Reversal of the rejections is thus respectfully requested.

B. The Written Description Rejections Are Improper

1. The Rejections Are Legally Incorrect

The written description rejections are premised on the legally incorrect position that an applicant must show both a structure *and* a function for the structure in order to satisfy written description even when the structure describes the claimed invention. For example, on page 23 the Examiner’s Answer discounts the fact that claimed hybrid plants share the genetic complement of variety I026458 because: “[t]hat all hybrids will inherit half of their alleles from I026458 does not provide any information concerning the morphological and physiological characteristics that will be expressed by the claimed hybrids.” This misconception is continued throughout.

The correct legal standard does not require a structure and a function when the structure provided describes the claimed invention. Rather, an applicant must merely describe the claimed subject matter by “whatever characteristics sufficiently distinguish it.” *Amgen v. Chugai Pharmaceutical*, 927 F.2d 1200, 1206 (Fed. Cir. 1991). Here, the same genetic complement of

parent plant I026458 is contained in all of the claimed hybrids and describes and distinguishes the hybrid plants in full compliance with §112. This constitutes a description of concrete, distinguishable structural characteristics shared by all of the hybrid plants. This fully satisfies written description because what second parent contributes the other half of the genome is irrelevant to the production of a hybrid plant. As stated by the Examiner at page 35 in the context of single locus conversions “there is only one genetic structure that is relevant.” What is relevant here is the genetic complement of variety I026458, which was fully described.

The hybrids are further described because one of skill in the art would immediately envision such plants. First, the entire genetic complement of corn variety I026458 was described by biological deposit pursuant to the *Enzo* holding. Second, the identity of the second plant is irrelevant to whether a hybrid is produced. Third, thousands of corn plants that could serve as a second parent are well known to those of skill in the art, including several hundred having issued U.S. patents and biological deposits with the ATCC. Based on the seed deposits, those of skill in the art would immediately envision at least hundreds of hybrid plants down to the level of the DNA sequence of the plant genome. Given this detail of description the morphological traits are completely superfluous.

The fact that this description is made at the genetic level rather than by morphological traits in no way negatives written description. Written description is satisfied by describing structure characteristics allowing those of skill in the art to immediately “visualize or recognize the identity of the members of the genus. *The Regents of The University of California v. Eli Lilly and Co.*, 119 F.3d 1559, 1568; 43 USPQ2d 1398, 1406 (Fed. Cir. 1997). Appellants have done precisely this by disclosing the genome of corn plant I026458 that is included in each of the claimed hybrid plants.

2. The entire genetic complement of I026458 is contained in F1 hybrid progeny

The Answer asserts on page 22 that Appellants caused confusion by stating that “All of the claimed hybrid plants having I026458 as a parent will therefore contain a copy of the same genome as corn plant I026458.” It is alleged that this is confusing because it could be taken to mean that the *entire* genome of any of claimed hybrids is identical to the entire genome of I026458. However, this is a red herring because each of the progeny plant will contain *a copy* of the *entire genome* of variety I026458.

Corn is a diploid species and thus a plant of a given inbred variety, including I026458, will have two copies of its genome. The progeny of such a plant will receive one copy of this genome, which contains the *entire* genetic complement from the parent regardless of the fact that the second duplicate copy of the genome is not present. This constitutes a concrete, distinguishing structural characteristic that is uniform in all of the progeny plants and serves to fully describe them in compliance with 35 U.S.C. §112, first paragraph. The fact that a second genetic complement contributed by a second parent plant is present is irrelevant because a hybrid will be produced by crossing I026458 with *any* different plant.

3. The rejection of claim 31 has not been adequately supported

The Examiner’s Answer cites on pages 20 and 39 the “Revised Interim Guidelines for Examination of Patent Applications Under the 35 U.S.C. Sec. 112, ¶‘Written Description’ Requirement; Request for Comments, 64 Fed. Reg. 71427, 71428 (1999), comment no. 4 as support for the rejection of claim 31. This comment states the following:

(4) Comment: Six comments were in favor of including process and product-by-process claims in the analysis, whereas one comment was opposed. One comment criticized the Guidelines for failing to acknowledge the “safe harbor” product-by-process type claim noted in *Fiers v. Revel*, 984 F.2d 1164, 25 USPQ2d 1601 (Fed. Cir. 1993), and *Amgen Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991). One comment observed that process and product-by-process claims tend not to implicate many written description issues, and it

may be useful to point out possible enablement deficiencies for such claims. Two comments suggested that the Guidelines should distinguish between claims to processes whose patentability depends on the compositions used in them, as opposed to those where patentability rests in the steps of the process itself. Response: The suggestion to address process and product-by-process claims has been adopted. Furthermore, the training materials will analyze claims wherein the patentability depends on the compositions used therein, as well as those where the patentability rests in the process steps themselves. Enablement issues raised by process and product-by-process claims are outside the scope of these Revised Interim Guidelines.

The comment was cited previously during prosecution as indicating that written description of a process claim requires a structural description of each intermediate product as if claimed in a product claim, *e.g.*, that process and composition claims are analyzed in the same way under the Guidelines. However, the Answer appears to state the opposite by acknowledging that the comment contemplates different treatment of product and process claims. Appellants respectfully submit that this contradicts the position taken by the Examiner. If product and process claims are treated differently there is no basis to allege that written description of a process claims requires a description of products created in intermediate and penultimate steps as if claimed in a product claim. Therefore, as the only authority cited for the rejection supports Appellants position, it is respectfully submitted that the rejection is not supported by substantial evidence as required by the APA. *See In re Gartside*, 203 F.3d 1305, 1314-15 (Fed. Cir. 2000).

The Answer further acknowledges that the point of novelty must be taken into consideration when analyzing written description. While this may be true the only composition upon which patentability rests here is *variety I026458*, which the Examiner does not contest has been fully described. What other products are used are irrelevant.

With regard to crossing corn plant I026458 with any second parent plant, the Examiner has acknowledged the description of this subject matter by the allowance of claims 21-22. Claim 22 in particular is directed to a process of producing F1 hybrid corn seed comprising crossing

distinct inbred corn plants, one of which is a plant of the corn variety I026458. After crossing corn plant I026458 with a second parent plant, all of the remaining steps are routine breeding steps. The Examiner does not contest that corn breeding was routine in the art. Answer p. 40. Such plant breeding steps were also fully described in the specification. Given that the steps are routine breeding methods well known in the art and fully described in the specification, and the only composition upon which patentability depends has been acknowledged on the record to be described, it is submitted that description cannot reasonably be claimed to be lacking. *Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 863 (Fed. Cir. 1993) (Stating that written description must be reviewed from the perspective of one of skill in the art at the time the application is filed.).

In conclusion, all steps of the claimed process have been recited, all starting materials have been fully described, and methods of producing new corn varieties were well known to those of skill in the art. Claim 31 has therefore been fully described in compliance with 35 U.S.C. §112, first paragraph. Reversal of the rejection is thus respectfully requested.

C. Rejection of Claims Under 35 U.S.C. §112, First Paragraph - Enablement

The Examiner continues to assert the enablement rejection based on the contention that: (1) several references from species other than corn indicate difficulty in preparing single locus conversions, and (2) all single locus traits were not known and/or the corresponding phenotypic traits were not shown.

With regard to the first point, Appellants note that none of the references have been shown to have any relevance to *corn* plants. Hunsperger deals with petunias; Kraft with sugar beets and Eshed with Tomatoes. The relevance of the references to the claimed invention has

therefore not been established as is specifically required to establish a *prima facie* case of non-enablement. Appellants pointed this out in the Appeal Brief, but the Answer simply disagrees without providing a scientific basis for doing so.

Appellants submit that the position taken is incorrect because corn breeding is extremely advanced and well known in the art as evidenced by the descriptions in the specification and references cited therein. This is due in large part to the fact that corn is one of the world's major food crops and largest seed crops. As explained in the specification, North American farmers alone plant *tens of millions of acres* of corn at the present time and there are *extensive national and international commercial corn breeding* programs. The market for corn seed in the U.S. alone is in excess of \$2 billion (e.g., http://www.biotech-info.net/Distribution_benefits.pdf). No basis has been shown to conclude that the same is true of the other plants and it is respectfully submitted that this is not true. The cited references therefore have not been shown to have any relevance to the claims.

The Examiner has not provided any basis other than opinion to suggest why the genetics of any of petunias, sugar beets or tomatoes are relevant to corn. Each of these plants are widely genetically diverged from maize – they are each classified as dicotyledonous plants whereas maize is a monocotyledonous plant. This distinction was noted by the Federal Circuit in *Plant Genetic Systems v. DeKalb Genetics Corp.*, in which a finding on non-enablement was affirmed because the claims read on both monocotyledonous and dicotyledonous plants, but were only enabled for dicotyledonous plants. 315 F.3d 1335 (Fed. Cir. 2003).

It therefore appears that the Examiner has improperly placed the burden to show enablement on Appellants. The indication that the references concerning petunias, sugar beets and tomatoes apply to corn is made without support. At the same time, the Examiner attempts to

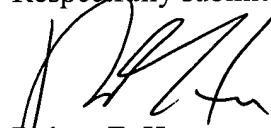
require Appellants to show why this is not true. While Appellants have nonetheless done so, it is respectfully noted that it is the *Office* that bears the burden of supporting its rejections. Appellants submit that this has not been done.

With regard to the particular genes used, Applicants have already shown over two pages well more than a representative number of genes for creation of single locus conversions. Further, the Examiner has provided no basis to indicate why the particular single locus used is relevant to production of the conversion. Using the well known procedures described in detail in the specification essentially any conversion can routinely be made. Appellants therefore submit that the current rejection is unsupported in fact or law. Reversal of the rejection is therefore respectfully requested.

X. CONCLUSION

It is respectfully submitted, in light of the above, none of the pending claims are properly rejected. Therefore, Appellants request that the Board reverse the pending grounds for rejection.

Respectfully submitted,



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Date: June 29, 2004

APPENDIX 1: APPEALED CLAIMS FOLLOWING ENTRY OF THE AMENDMENT
UNDER 37 C.F.R. §1.116

6. The corn plant of claim 5, having:
 - (a) an SSR profile in accordance with the profile shown in Table 6; or
 - (b) an isozyme typing profile in accordance with the profile shown in Table 7.

11. The plant part of claim 10, wherein said cell is further defined as having :
 - (a) an SSR profile in accordance with the profile shown in Table 6; or
 - (b) an isozyme typing profile in accordance with the profile shown in Table 7.

14. An essentially homogeneous population of corn plants produced by growing the seed of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

15. A corn plant capable of expressing all the physiological and morphological characteristics of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

16. The corn plant of claim 15, further comprising a nuclear or cytoplasmic gene conferring male sterility.

17. A tissue culture of regenerable cells of a plant of corn variety I026458, wherein the tissue is capable of regenerating plants capable of expressing all the physiological and morphological characteristics of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

18. The tissue culture of claim 17, wherein the regenerable cells comprise cells derived from embryos, immature embryos, meristematic cells, immature tassels, microspores, pollen, leaves, anthers, roots, root tips, silk, flowers, kernels, ears, cobs, husks, or stalks.

19. The tissue culture of claim 18, wherein the regenerable cells comprise protoplasts or callus cells.

20. A corn plant regenerated from the tissue culture of claim 17, wherein the corn plant is capable of expressing all of the physiological and morphological characteristics of the corn variety designated I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

21. A process of producing corn seed, comprising crossing a first parent corn plant with a second parent corn plant, wherein one or both of the first or the second parent corn plant is a plant of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228, wherein seed is allowed to form.

22. The process of claim 21, further defined as a process of producing F1 hybrid corn seed, comprising crossing a first inbred corn plant with a second, distinct inbred corn plant, wherein the first or second inbred corn plant is a plant of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

24. Hybrid corn seed produced by the process of claim 23.

25. A hybrid corn plant produced by growing a seed produced by the process of claim 23.

26. The hybrid corn plant of claim 25, wherein the plant is a first generation (F₁) hybrid corn plant.

27. The corn plant of claim 5, further defined as having a genome comprising a single locus conversion.

28. The corn plant of claim 27, wherein the single locus was stably inserted into a corn genome by transformation.

29. The corn plant of claim 27, wherein the locus is selected from the group consisting of a dominant allele and a recessive allele.

30. The corn plant of claim 27, wherein the locus confers a trait selected from the group consisting of herbicide tolerance; insect resistance; resistance to bacterial, fungal, nematode or viral disease; yield enhancement; waxy starch; improved nutritional quality; enhanced yield stability; male sterility and restoration of male fertility.

31. A method of producing an inbred corn plant derived from the corn variety I026458, the method comprising the steps of:

- (a) preparing a progeny plant derived from corn variety I026458 by crossing a plant of the corn variety I026458 with a second corn plant, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228;
- (b) crossing the progeny plant with itself or a second plant to produce a seed of a progeny plant of a subsequent generation;
- (c) growing a progeny plant of a subsequent generation from said seed and crossing the progeny plant of a subsequent generation with itself or a second plant; and
- (d) repeating steps (b) and (c) for an addition 3-10 generations to produce an inbred corn plant derived from the corn variety I026458.

APPENDIX 2: PENDING CLAIMS FOLLOWING ENTRY OF THE AMENDMENT
UNDER 37 C.F.R. §1.116

1. A seed of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.
2. A population of seed of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.
3. The population of seed of claim 2, further defined as an essentially homogeneous population of seed.
5. A corn plant produced by growing a seed of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.
6. The corn plant of claim 5, having:
 - (a) an SSR profile in accordance with the profile shown in Table 6; or
 - (b) an isozyme typing profile in accordance with the profile shown in Table 7.
7. A plant part of the corn plant of claim 5.
8. The plant part of claim 7, further defined as pollen.
9. The plant part of claim 7, further defined as an ovule.
10. The plant part of claim 7, further defined as a cell.
11. The plant part of claim 10, wherein said cell is further defined as having :
 - (a) an SSR profile in accordance with the profile shown in Table 6; or
 - (b) an isozyme typing profile in accordance with the profile shown in Table 7.

12. A seed comprising the cell of claim 10.
13. A tissue culture comprising the cell of claim 10.
14. An essentially homogeneous population of corn plants produced by growing the seed of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.
15. A corn plant capable of expressing all the physiological and morphological characteristics of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.
16. The corn plant of claim 15, further comprising a nuclear or cytoplasmic gene conferring male sterility.
17. A tissue culture of regenerable cells of a plant of corn variety I026458, wherein the tissue is capable of regenerating plants capable of expressing all the physiological and morphological characteristics of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.
18. The tissue culture of claim 17, wherein the regenerable cells comprise cells derived from embryos, immature embryos, meristematic cells, immature tassels, microspores, pollen, leaves, anthers, roots, root tips, silk, flowers, kernels, ears, cobs, husks, or stalks.
19. The tissue culture of claim 18, wherein the regenerable cells comprise protoplasts or callus cells.
20. A corn plant regenerated from the tissue culture of claim 17, wherein the corn plant is capable of expressing all of the physiological and morphological characteristics of the corn variety designated I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

21. A process of producing corn seed, comprising crossing a first parent corn plant with a second parent corn plant, wherein one or both of the first or the second parent corn plant is a plant of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228, wherein seed is allowed to form.

22. The process of claim 21, further defined as a process of producing F1 hybrid corn seed, comprising crossing a first inbred corn plant with a second, distinct inbred corn plant, wherein the first or second inbred corn plant is a plant of the corn variety I026458, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228.

23. The process of claim 22, wherein crossing comprises the steps of:

- (a) planting the seeds of first and second inbred corn plants;
- (b) cultivating the seeds of said first and second inbred corn plants into plants that bear flowers;
- (c) preventing self pollination of at least one of the first or second inbred corn plant;
- (d) allowing cross-pollination to occur between the first and second inbred corn plants; and
- (e) harvesting seeds on at least one of the first or second inbred corn plants, said seeds resulting from said cross-pollination.

24. Hybrid corn seed produced by the process of claim 23.

25. A hybrid corn plant produced by growing a seed produced by the process of claim 23.

26. The hybrid corn plant of claim 25, wherein the plant is a first generation (F₁) hybrid corn plant.

27. The corn plant of claim 5, further defined as having a genome comprising a single locus conversion.

28. The corn plant of claim 27, wherein the single locus was stably inserted into a corn genome by transformation.

29. The corn plant of claim 27, wherein the locus is selected from the group consisting of a dominant allele and a recessive allele.

30. The corn plant of claim 27, wherein the locus confers a trait selected from the group consisting of herbicide tolerance; insect resistance; resistance to bacterial, fungal, nematode or viral disease; yield enhancement; waxy starch; improved nutritional quality; enhanced yield stability; male sterility and restoration of male fertility.

31. A method of producing an inbred corn plant derived from the corn variety I026458, the method comprising the steps of:

- (a) preparing a progeny plant derived from corn variety I026458 by crossing a plant of the corn variety I026458 with a second corn plant, wherein a sample of the seed of the corn variety I026458 was deposited under ATCC Accession No. PTA-3228;
- (b) crossing the progeny plant with itself or a second plant to produce a seed of a progeny plant of a subsequent generation;
- (c) growing a progeny plant of a subsequent generation from said seed and crossing the progeny plant of a subsequent generation with itself or a second plant; and
- (d) repeating steps (b) and (c) for an addition 3-10 generations to produce an inbred corn plant derived from the corn variety I026458.